E-SDS-TAA-(P)V2
TAA COMPLIANT SMOKE DETECTION SENSOR

Installation Instruction

The E-SDS-TAA-V2 is a smoke detection sensor intended for connection to an NTI E-16D/5D/2D, E-MINI-LXO, E-MICRO-TRH(P) or E-1W.   (ENVIROMUX) for use in detecting smoke in a server cabinet environment.   When properly connected, the E-SDS-TAA-V2 will provide signals to the ENVIROMUX that with proper configuration will result in alert messages being sent to the administrator of the ENVIROMUX.

Features Include:
- For warning of smoke.
- Photoelectric smoke detector.
- Built-in 135°F (57°C) thermal heat sensor provides warning.
  - Red LED comes ON and smoke detector goes into Alarm mode when temperature reaches 135°F (57°C)
- Connect to RJ45 or digital input sensor ports.
- Supports CAT5/5e/6 UTP or STP cables (14-22AWG).
- Voltage Supply: 8.5-35VDC
- Current Consumption: 50μA Standby/ 20mA max.@12VDC
- Alarm Output: Relay (N.O.)
- Screw terminal
  - To connect to the RJ45 inputs use CAT5/5e/6 cable terminated at one end with RJ45 connector. Connect the un-terminated end to the sensor screw terminal.
- Maximum cable length: 1,000 ft (305 m) using minimum 22AWG wire.
- Powered by E-2D/5D/16D or 12VDC 1A AC Adapter (E-SDS-TAA-**P**V2).
- Regulatory approvals: UL
- TAA compliant

> **Note: The E-SDS-TAA-V2 is NOT intended to be used as a primary fire and smoke detection device.**

Installation
1. Connect two 16-22 AWG wires (not supplied) from any set of "Digital In" terminals (see below and on next page) on the ENVIROMUX.
2. Connect the other end of those two wires to the switch terminals "C" and "N/O" on the smoke detection sensor.
3. Connect two more 16-22 AWG wires between the "12V" and " ⏚ " (ground) terminals on the ENVIROMUX and the "+12V" and "GND" terminals on the smoke detector.
4. Be sure to tighten terminal screws to secure each conductor to the terminal block.
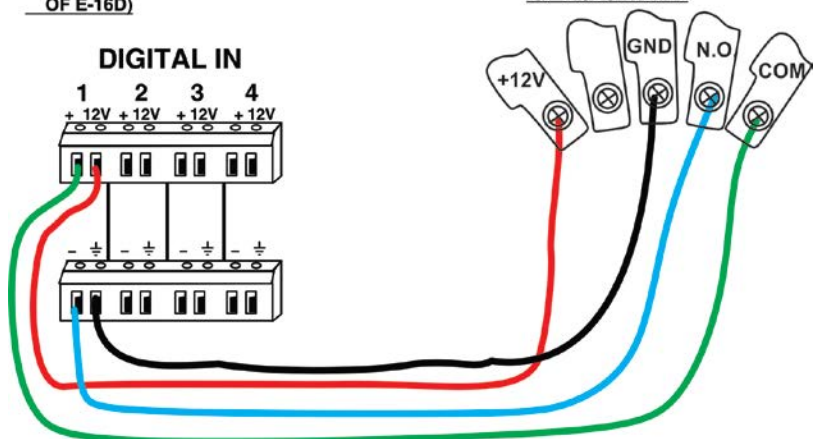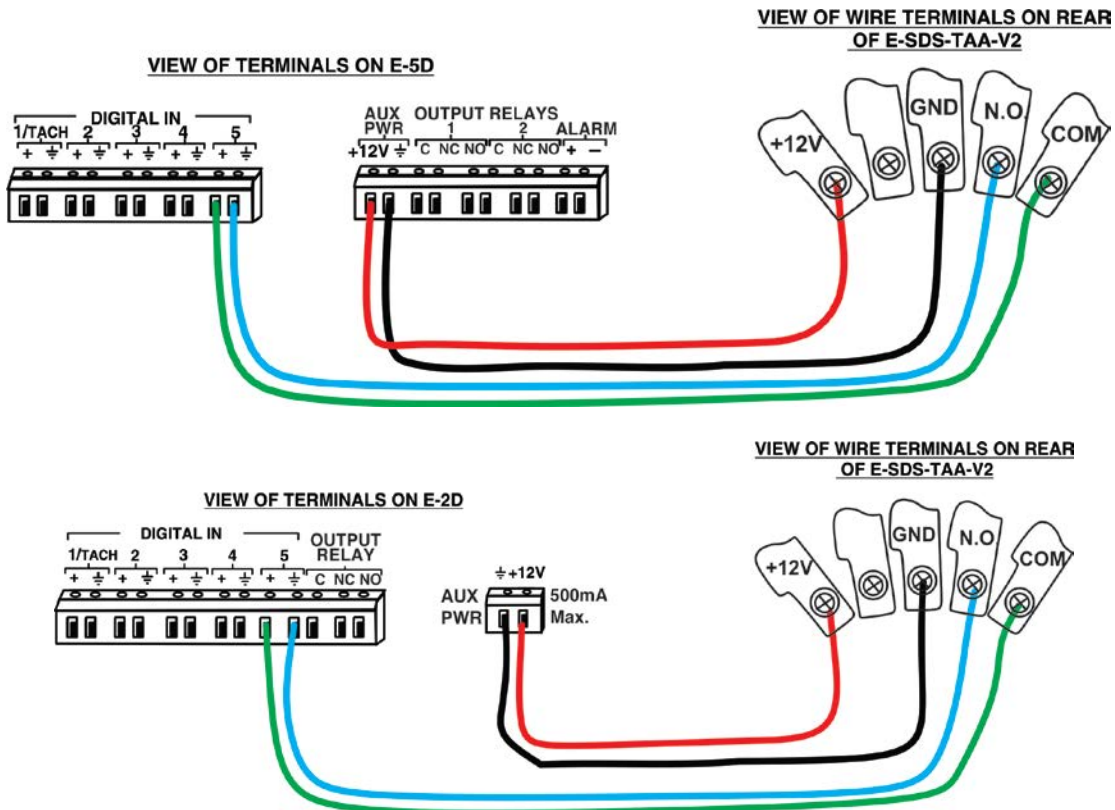5. Mount the E-SDS-TAA-V2 where smoke detection is desired.
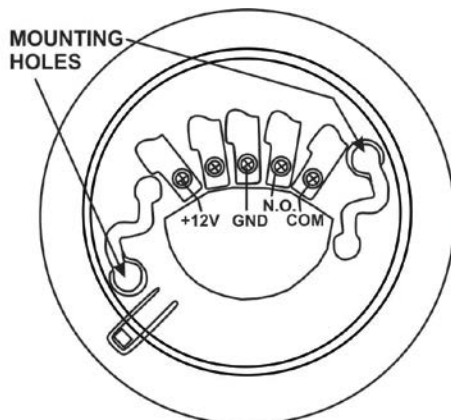
Top View of Base
E-SDS-TAA-(P)V2

VIEW OF TERMINALS ON E-5D

VIEW OF WIRE TERMINALS ON REAR OF E-SDS-TAA-V2

VIEW OF TERMINALS ON E-2D
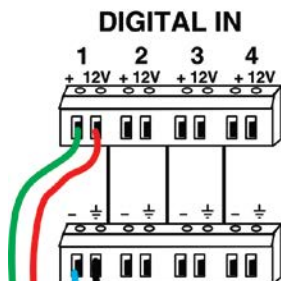
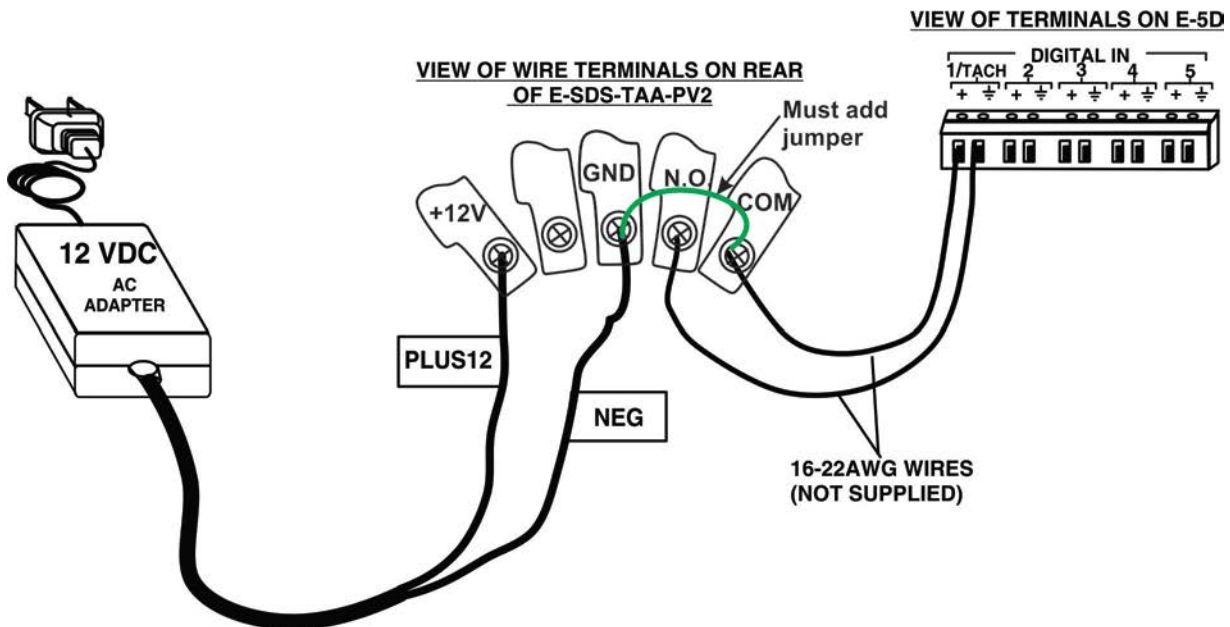VIEW OF WIRE TERMINALS ON REAR OF E-SDS-TAA-V2

Alternative Power Supply

If the 12V power on the ENVIROMUX is unavailable, an E-SDS-TAA-PV2 will be needed that includes a 12VDC AC adapter. Connect the 12VDC AC adapter as follows:

1. Connect the wire labeled "PLUS 12" to the terminal marked "+12V" on the smoke detection sensor.

2. Connect the wire labeled "NEG" to the terminal labeled "GND" on the smoke detection sensor.

Be sure to add jumper between "GND" and "COM" terminals when external 12VDC power supply is used.

VIEW OF TERMINALS ON E-5D

VIEW OF WIRE TERMINALS ON REAR OF E-SDS-TAA-PV2

VIEW OF WIRE TERMINALS ON REAR OF E-SDS-TAA-V2

+12V GND N.O COM

CAT5 Cable

1 2 3 4 5 6 7 8

Pins 3,4, 5 and 6 are not used here

VIEW LOOKING INTO RJ45 SENSOR PORT ON ENVIROMUX
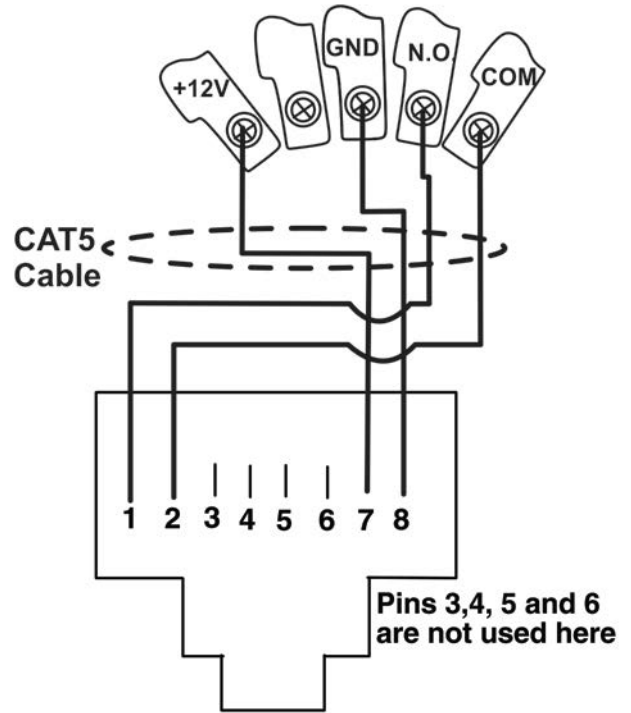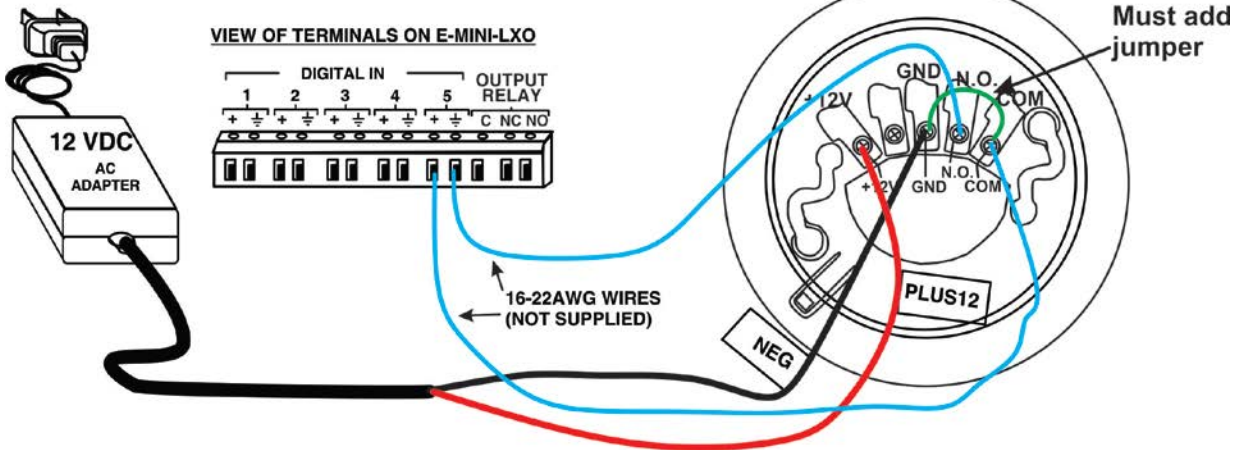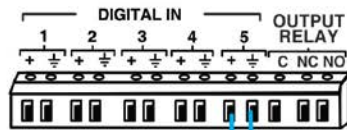
Alternative Sensor Connection

If a connection to an available "RJ45 Sensor" input is desired, CAT5/5e/6 patch cable can be used (minimum 16-22AWG) by cutting off one end and terminating to the sensor as illustrated to the right.

E-MINI-LXO

VIEW OF TERMINALS ON E-MINI-LXO

DIGITAL IN
1 2 3 4 5

OUTPUT RELAY
C NC NO

12 VDC AC ADAPTER

VIEW OF WIRE TERMINALS ON BASE OF E-SDS-TAA-PV2

Must add jumper

+12V GND N.O. COM
+12V GND N.O. COM

PLUS12

NEG

16-22AWG WIRES (NOT SUPPLIED)

E-MICRO-TRH(P) or E-1W

ENVIROMUX®

SENSORS
1   2

DIGITAL IN

12 VDC AC ADAPTER

PLUS12   NEG

DIGITAL IN
1   2

VIEW OF WIRE TERMINALS ON BASE OF E-SDS-TAA-PV2

Must add jumper

+12V GND N.O. COM
+12V GND N.O. COM

16-22AWG WIRES (NOT SUPPLIED)
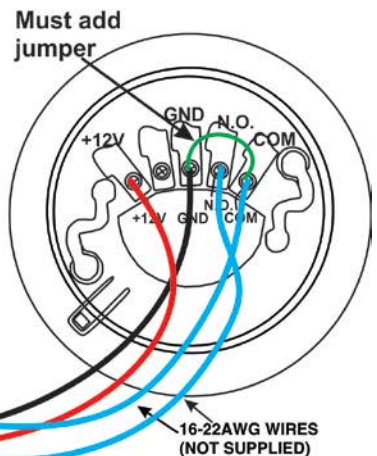
Operation

1. When powered ON, after a short delay (15 seconds) the LEDs on the E-SDS-TAA-V2 will flash (one will be green, the other red) once every 10 seconds for up to 4 minutes (see TABLE 2 below) after which only the Green LED will blink every 5 seconds to indicate the sensor is functioning and in status-ready condition.

When smoke is detected or when the temperature exceeds 135°F (57°C) the Red LED will illuminate solid red and the detector will be placed in **Alarm Mode** (closing the circuit between N.O. and COM terminals).

To reset the smoke detector to Normal Mode, cycle power to the detector.

Test Switch

An opening for a recessed test switch is located on the detector housing.

1. Insert a small screwdriver or Allen wrench (0.18″ dia. max.) into the test switch opening; push and hold.

2. If the detector is working properly, the detector's red LED should light within five seconds.   To reset the smoke detector to Normal mode, cycle power to the detector.
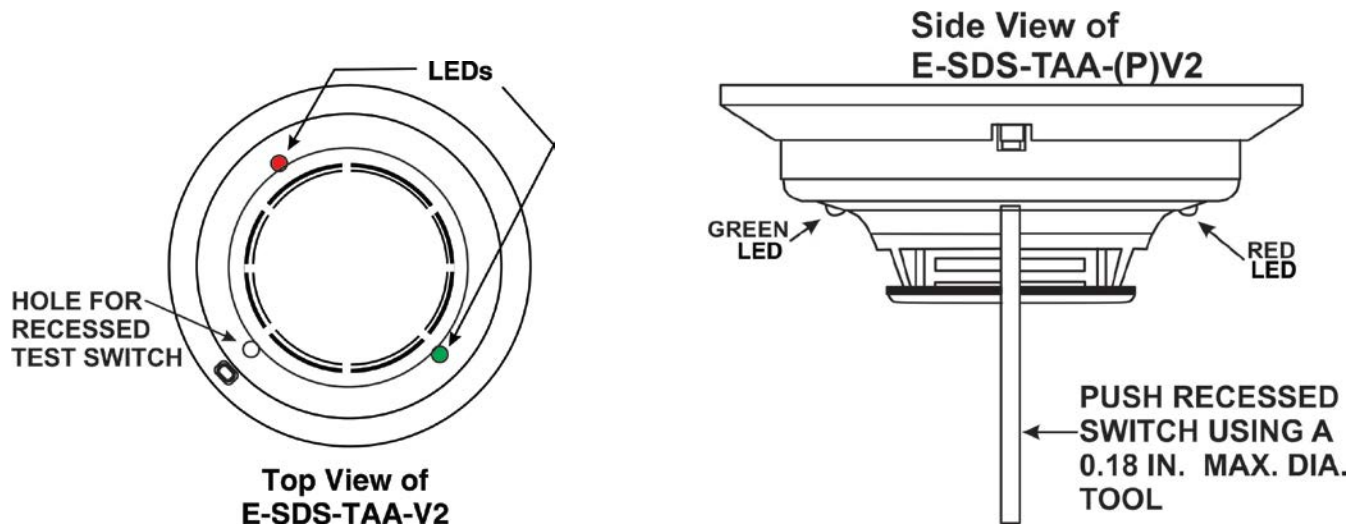

Top View of E-SDS-TAA-V2

Side View of E-SDS-TAA-(P)V2

TABLE 1: DETECTOR LED MODES

Mode	Green LED	Red LED
Power-up	Blink every 10 sec	Blink every 10 sec
Normal (standby)	Blink every 5 sec	---
Out of sensitivity	---	Blink every 5 sec
Freeze Trouble	---	Blink every 10 sec
Alarm	---	Solid ON

Red LED will blink every 10 seconds if the E-SDS-TAA-V2 senses a temperature below 5°C (41°F)

The on-board switch will also close the circuit between N.O. and COM contacts in Alarm Mode

After an initial power-up delay, the red and green LEDs will blink synchronously once every ten seconds. It will take approximately 80 seconds for the detector to finish the power-up cycle (see Table 2).

TABLE 2: POWER-UP SEQUENCE FOR LED STATUS INDICATION

Condition	Duration
Initial LED Status Indication	Up to 80 seconds
Initial LED Status Indication if excessive electrical noise is present	Up to 4 minutes

NOTE: If, during power-up, the detector determines there is excessive electrical noise in the system such as those caused by improper grounding of the system or the conduit, both LEDs will blink for up to 4 minutes before displaying detector status (see Table 2).

2. Configure the ENVIROMUX to report signals from the connected sensor as smoke detection sensor alerts.   (Refer to ENVIROMUX manual for details on configuration- see also example below.)   When smoke is detected, the switch terminals on the E-SDS-TAA-V2 will close to generate an alert message from the ENVIROMUX.

For maintenance and testing instruction, see the instructions that are included from the sensor manufacturer with this kit.

New Sensor Configuration

Digital Input Settings

Description	Smoke Detector	
	Descriptive name for the digital input	
Group	1	
	Select which group the digital input belongs to	
Normal Status	Open	
	Select the normal status for the digital input	
Refresh Rate	20	Sec
	The refresh rate at which the digital input view is updated	

Alert Settings

Data Logging

Save

Alert Simulation

Simulate Alert   Clear Alert

Example of sensor configuration in ENVIROMUX

In the event the smoke detector should be placed in alarm condition, it must be power-cycled in order to reset it.   To quickly cycle the power when connected to a Digital Input of an E-xD, go to the sensor status page in the ENVIROMUX WEB interface, and click on the "Cycle Sensor Power" button. (Not applicable to E-MINI-LXO, E-MICRO-T(RHP) or E-1W.) The 12VDC power will be disrupted to the sensor for 5 seconds and then automatically restored.

Digital Input #2 Status

Type: Digital Input   **Connector:2**

Open

Status: Normal

Handle Alert: Dismiss   Apply Changes

Last alert was at: Never   Clear Records

Cycle Sensor Power (E-xD only) → Cycle Sensor Power

Configure

Warranty Information

The warranty period on this product (parts and labor) is two (2) years from the date of purchase. Please contact Network Technologies Inc at **(800) 742-8324** (800-RGB-TECH) or **(330) 562-7070** or visit our website at http://www.networktechinc.com for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.

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CHANGES
The material in this guide is for information only and is subject to change without notice. Network Technologies Inc reserves the right to make changes in the product design without reservation and without notification to its users.

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